

ABSTRACT

A magnetic memory element has reduced demagnetization coupling between a pinned layer and a free layer. The element includes a pinned ferromagnetic layer and a free ferromagnetic layer which are separated by a barrier layer. The pinned layer is pinned by an antiferromagnetic layer. An offset ferromagnetic layer is provided on a side of the antiferromagnetic layer opposite the pinned ferromagnetic layer to reduce demagnetization coupling between the free ferromagnetic layer and the pinned ferromagnetic layer.